Controlling mercury from dental waste: A success story

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Keywords: mercury, dental amalgam, wastewater, regulations

Dental amalgam contains 50% mercury by weight. Until recently much of the dental waste amalgam in King County was going down the drains to King County's two regional sewage treatment plants. The majority of this dental mercury ended up in the biosolids, the nutrient rich byproduct of sewage treatment that is recycled on farms and forests. Although King County treatment plants met all requirements for mercury in both biosolids and effluent, we wanted to do better. When efforts to achieve voluntary compliance from dentists failed, King County instituted requirements for dentists to implement best management practices and install amalgam separators. By the end of 2003, the year the requirements went into effect, an estimated 93% of dentists in King County had complied. By 2005 an estimated 97% had complied. Mercury in biosolids at King County's two treatment plants, declined by almost half, from a median mercury concentration of 2.35 ppm in 2002 to 1.3 ppm in 2004.